DETAILED ACTION

1. In the Preliminary Amendment dated 12/9/2005, claims 4, 6, 7, 9, and 10 are amended. Claim 12 is newly added. Claims 1-12 are currently pending.

Claim Objections

2. Claims 1 and 11 are objected to because of the following informalities: in line 11 of claim 1, the word “fictional” should be recited as --frictional-- so as to overcome the spelling error; in line 2 of claim 11, “a biassed radially” should be recited as --are biased radially-- so as to overcome the spelling errors. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "resilient diaphragm" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. **Claims 1, 4-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Castro (U.S. Pat. 5,389,081) in view of König (U.S. Pat. 4,513,948).**

Regarding claims 1 and 6, Fig. 2 of Castro discloses a seal for a laparoscopic port, comprising a base (e.g. 14) adapted to engage a cannula, the base including an

axial aperture (40); a multiplicity of jaws (20, 22) mounted on the base and movable radially between and open and closed position; and an actuator (18) to urge the jaws to move between said open and closed positions, where the actuator includes a follower (42, 43) movable along a guide (44, 46) on the actuator having inner and outer ends corresponding to open and closed positions of the jaw (as per claim 6). It is noted, however, that the actuator of Castro does not include a click-stop arranged to provide frictional engagement at intermediate jaw positions. König discloses a valve for regulating the size of an aperture created between diaphragm elements, shown in Fig. 3 to have a click-stop arrangement (17, 27) adapted to provide frictional engagement for jaw or diaphragm elements (8) which is capable of providing a closure resisting force greater than a restoring force (as per claim 6). Hence regarding claims 1 and 6, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the click-stop arrangement as taught by König to the actuator of Castro so as to incrementally control, in a predictable way, the movement of a multiplicity of jaws of Castro, the jaws suggested in Castro as being selectively varied so as to hold different sized instruments (col. 5, lines 24-26).

Regarding claims 4 and 5, Figs. 2 and 3 of Castro disclose a protrusion of a camming pin (42, 34) formed on the jaw (as per claim 4 and 5) where the pin is received in a recess in a guide (44, 46) on the actuator (as per claim 5).

Regarding claims 7, 8 and 12, Fig. 2 of Castro shows the guide being an arcuate channel in the actuator which has a somewhat parabolic shape.

Regarding claim 9, Fig. 3 of Castro shows a portion of the recess being located on the radial inner surface of the guide.

Regarding claim 10, Figs. 3-5 of Castro shows the jaws being biased radially inwardly so as to decrease the size of an aperture (48) upon movement “A".

9. **Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moran (PCT WO/01/89397 A1) in view of König (U.S. Pat. No. 4,513,948).**

Regarding claims 1 and 6, Fig. 1 of Moran discloses a seal for a laparoscopic port, comprising a base (1) adapted to engage a cannula, having an axial aperture; a multiplicity of jaws (7) mounted on the base, movable radially between open and closed positions to provide restraining radial movement of a shaft; and an actuator (12) rotatable to urge the jaws between open and closed positions. It is noted, however, that the actuator of Castro does not include a click-stop arranged to provide frictional engagement at intermediate jaw positions. König discloses a valve for regulating the size of an aperture created between diaphragm elements, shown in Fig. 3 to have a click-stop arrangement (17, 27) adapted to provide frictional engagement for jaw or diaphragm elements (8) which is capable of providing a closure resisting force greater than a restoring force (as per claim 6). Hence regarding claims 1 and 6, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the click-stop arrangement as taught by König to the actuator of Moran so as to incrementally control, in a predictable way, the range of movement of a multiplicity of

jaws of Moran, the jaws suggested in Moran as configured to be open or closed across a range of movement or motion (e.g., from 30 deg. to 180 deg. as in pg. 3, line 10).

Regarding claims 2 and 3, Moran discloses the jaws being "mounted on the base", interpreted as being on the base, thus the click stop arrangement in the combination of Moran and König comprises a discontinuity of a recess (14) on the actuator capable of engaging a complementary discontinuity of a detent on the base.

Regarding claims 4 and 5, the combination of Moran and König shows, as in Fig. 1 of Moran a protrusion of a pin (8) formed on the jaw (as per claim 4 and 5) where the pin is received in a recess in a guide (14) on the actuator (as per claim 5).

Regarding claims 7, 8 and 12, Fig. 1 of Moran shows the guide being an arcuate channel in the actuator which has a parabolic shape.

Regarding claim 9, Fig. 1 of Moran shows a portion of the recess being located on the radial inner surface of the guide.

Regarding claim 10, Moran discloses jaws biased radially inward (pg. 5, line 25)

Regarding claim 11, Fig. 1 of Moran discloses the seal engaging the lip of a resilient diaphragm (3) and Figs. 2a-c show the jaws biased radially inwardly when the diaphragm is dilated.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **Puffer et al (U.S. Pat. 5,033,519)** discloses a flow control valve having radially expanding jaws and flow control means.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCOTT MEDWAY whose telephone number is (571) 270-3656. The examiner can normally be reached on Monday through Friday, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on (571) 272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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